

LEAD BASED PAINT BUILDING SURVEY REPORT

Former Rainier Brewery 3100 Airport Way Seattle, Washington 98134

November 20, 2006

VEI Project #061013 LBP Survey

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Project Number: 061013

November 20, 2006

Prepared For:

Mr. Eitan Alon Ethan Construction, LLC 3100 Airport Way South Seattle, WA 98134

Prepared By:

Vernon Environemtnal, Inc. 3849 Klahani Drive SE, #9202 Issaquah, WA 98029

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1.0 BACKGROUND

Vernon Environmental, Inc. (VEI) was requested by Ariel Development, Inc. to perform a limited lead-containing paint inspection at the "Former Rainier Brewery". The intention of the inspection was to identify lead-containing painted surfaces that will remain after renovations are completed so these surfaces can be addressed in an operations and maintenance plan.

VEI inspected fifteen building areas for lead-based paint on October 31, 2006. A representative escorted VEI through the buildings from Ethan Construction, the general contractor performing the renovations. The Ethan Construction representative identified building finishes that would remain after renovations are completed. Exterior building surfaces were not included in the inspection.

The State of Washington Department of Labor and Industries regulates occupational exposure to lead. Where lead is present in any concentration employers must follow WAC 296-155-17603. The requirements include the establishment of a compliance program, respiratory protection and protective work clothing requirements, exposure monitoring, housekeeping and medical surveillance.

2.0 METHODOLOGY

Representative interior painted surfaces that will remain after the planned renovations were tested for lead using a Niton XLP Model 702 X-ray Fluorescence Paint Analyzer, Serial # 6801. Calibration was verified based on the requirements of the XRF Performance Characteristic Sheet for the Niton XLP Model 702 instrument. All calibration readings were within the tolerance for this instrument. The action level was set at 0.1 mg/cm². No substrate correction is required with the Niton instrument.

VEI also performed limited bulk sampling to confirm the XRF results and to test painted surfaces that were unable to be tested with the XRF. Bulk samples were collected and delivered to NVL Laboratories, Inc. in Seattle, Washington under chain-of-custody for analysis by EPA Method 7000B (Flame Atomic Absorption). Bulk confirmation samples revealed similar results to those surfaces tested with the XRF.

3.0 RESULTS

The following is a presentation of building information and XRF sampling results. Sample locations, XRF data sheets and bulk sample data are located in separate tab sections of the report.

3.1 Building 13 (100 and 200 Levels)

Building 13 has an empty basement on the 100 Level and an occupied tenant space on the 200 Level

Testing revealed the following:

Location	Paint Color / Component	Result (+ /-)
Building 13 - 100 Level	Beige / Brick Wall	+
Building 13 - 200 Level	Yellow / Brick Wall	+
Building 13 - 200 Level	Red / Brick Wall	+
Building 13 - 200 Level	Yellow / Metal Window	+

3.2 Buildings 10, 11, 12, 23 (100, 200 and 300 Levels)

These buildings are unoccupied shells built in a row with common walls and foundations making then one homogenous area. Buildings 10, 11 and 12 are accessible only on the 100 Level. Building 23 is accessible on the 100, 200, and 300 Levels.

Testing revealed the following:

Location	Paint Color / Component	Result (+ /-)
Building 10 - 100 Level	Brown / Metal Door	+
Building 10 - 100 Level	Red / Concrete Wall	+
Building 10 - 100 Level	Beige / Concrete Floor	-
Building 11 - 100 Level	White / Concrete Wall	+
Building 11 - 100 Level	White / Metal Window	+
Building 11 - 100 Level	White / Concrete Column	+
Building 12 - 100 Level	Yellow / Concrete Wall	+
Building 12 - 100 Level	White / Wood Trim	+
Building 23 - 100 Level	Beige / Wood Wall	+
Building 23 - 100 Level	Beige / Concrete Column	+
Building 23 - 100 Level	White / Metal Door	+
Building 23 - 100 Level	Brown / Concrete Riser	-
Building 23 - 200 Level	Green / Concrete Wall	+
Building 23 - 300 Level	Green/Wood Ceiling	+

3.3 Buildings 4, 5, 5A, 6, 7, 21, 22, 25 (100-800 Levels)

Buildings 5, 5A, 6, 7, 21, 22, and 25 were being renovated on all levels at the time of the inspection. Many interior surfaces were clearly newly installed and thus were not tested as part of this inspection. Older finishes were sampled.

Building 4 400 Level was being renovated by Ethan Construction at the time of the inspection. Older painted finishes were sampled on Level 400. All other levels of Building 4 were occupied by Tully's and VEI was directed not to sample them.

Testing revealed the following:

Location	Paint Color / Component	Result (+/-)
Building 4 – 400 Level	White / Wood Walls	-
Building 4 – 400 Level	White / Plaster Walls	+
Building 4 – 400 Level	White / Concrete Walls	+
Building 5A – 500 Level	Green / Wood Door	+
Building 5A – 500 Level .	Beige / Concrete Wall	Null
Building 5A – 300 Level	Gray / Wood Door	+
Building 5A – 300 Level	Gray / Metal Door	+
Building 5A – 300 Level	Red / Concrete Floor	-
Building 5 – 200 Level	Green / Metal Door	+
Building 5 – 200 Level	White / Drywall	-
Building 5 – 300 Level	Gray / Concrete Walls	+
Building 5 – 300 Level	White / Metal Trim	+
Building 5 – 300 Level	Green / Metal Door Trim	<u>-</u>
Building 6 – 100, 200 Level	White / Plaster Wall	-
Building 6 – 100, 200 Level	White / Concrete Wall	_
Building 6 – 100, 200 Level	Red / Metal Column	-
Building 7 – 500 Level	White / Metal Window Frame	+
Building 7 – 500 Level	Green / Concrete Column	+
Building 7 – 500 Level	White / Plaster Wall	-
Building 7 – 400 Level	Green / Concrete Column	+
Building 7 – 300 Level	Brown / Concrete Column	+
Building 7 – 200 Level	Beige / Concrete Wall	+
Building 21 – 300 Level	Beige / Concrete Wall	+
Building 21 – 300 Level	Beige / Concrete Column	+ _
Building 21 – 300 Level	Brown / Metal Door	+
Building 21 – 400 Level	White / Concrete Column	-
Building 21 – 400 Level	Beige/ Wood Door	+
Building 21 – 500 Level	White / Concrete Column	+
Building 21 – 600 Level	Green/ Metal Door	+
Building 21 – 700 Level	Beige / Concrete Wall	+
Building 21 – 700 Level	Red / Concrete Floor	-
Building 21 – 800 Level	Beige / Metal Door	+
Building 21 – 800 Level	Beige / Wood Trim	+
Building 21 – 800 Level	Beige / Concrete Wall	+
Building 21 – 800 Level	Gray / Metal Door	+
Building 21 – 800 Level	Beige / Metal Column	-

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Location	Paint Color / Component	Result (+ /-)
Building 22 – 500 Level	Green / Concrete Wall	+
Building 25 – 400 Level	Black / Concrete Column	-
Building 25 - 500 Level	Green / Metal Door	+
Building 25 - 500 Level	White / Plaster Wall	+
Building 25 - 500 Level	White / Concrete Column	-

3.4 Buildings 14, 15, 18

Buildings 14 and 18 have walls that were recently spray painted with graffiti as part of a community arts project. The spray paint was not tested. Buildings 14 and 18 are only accessible on the 200 Level.

Building 15 is a newly renovated Dance Studio. It was locked at the time of the inspection and could not be accessed.

Testing revealed the following:

Location	Paint Color / Component	Result (+ /-)
Building 14 - 200 Level	Beige / Concrete Wall	
Building 14 - 200 Level	Brown / Concrete Wall	+
Building 18 - 200 Level	White / Concrete Column	+

3.5 Bulk Sampling

Ten (10) bulk samples from painted surfaces, including coatings from walls, a structural beam, a pipe, a column, a stairwell, window trim, stairs, a door jam, were sampled and analyzed using Flame Atomic Absorption. Nine (9) samples were found to contain detectable concentrations of lead. Results are included in Appendix A.

4.0 RECOMMENDATIONS

Lead-containing paint was identified on many interior finishes. Furthermore, concealed painted coatings may exist in inaccessible areas of the building or in secondary coatings on building components.

Impact of painted surfaces with detectable concentrations of lead requires construction activities to be performed according to Washington Labor and Industries regulations for Lead in Construction (WAC 296-155). Workers impacting lead-containing paint should be provided the proper personal protective equipment and use proper work methods to limit occupational and environmental exposure to lead until an initial exposure assessment has been conducted.

5.0 STANDARD OF CARE

The services performed by Vernon Environmental, Inc. on this project have been conducted with that level of care of skill ordinarily exercised by reputable members of the profession, practicing in the same locality under similar budget and time constraints. No other warranty is expressed or implied.

APPENDIX A

LABORATORY RESULTS AND CHAIN OF CUSTODY



2614705.00

Proj	ject: <u>Old Kanic</u>	s Bre	wery	Project #:	
Ana	lysis requested:	it m	usphy Pb	Date: 11 / 1 / 06	
Reli	nq'd by/Signature:	met 7	nuphy	Date/Time: // / /06	
Rece	eived by/Signature:	rin Le	wis of	Date/Time: _// / / / / / / / / / / / / / / / / /	: 35
Fax	results to:			/ /	•
	Brian Stanford		Prudy Stoudt-McRae	☐ Harry Goren	
	Ernest Edwards		Mike Smith	☐ Tim Ogden	
	Gregg Middaugh		Gwen McCullough	☐ Gary Stensland	
	Mark Hiley		Willem Mager	Other Janet	
TUR	RN AROUND TIME:	-		murphy	
	1 Hour		24 Hours	□ 3-5 Days	
	2 Hours		48 Hours	Other	
П	4 Hours				_

Lab#	Sample #	ط	aterial Paint		Location	Lab
		white Pe	victural beam	Blda6.	Level 200	
	2		te Paint	Blda 11	Pipe	
	3_	White P.	aint.	13/dg 2	2 Column	
	4	Jantlight G	rn+ Drk Green	Blag 1	2 Wall B	
	5	Paint on 1 2 Browns, 1	not Drk Green Metal Rail Bluc,	Bla	922 Stair	
	6	White Pai	nt on Plaster		8002cvc	
	7	white Pai	trion wood trion int off cenesis	Bidg 21	500 level	
	8	White Pa Stairs.	int off ceneri	Bldg 5	Ground	
	9	Whitep	er lea ! i	BIAS	Ground	
	Į0	Paint of	f Poor Jam luc, brown	Bldg 25	700 Leve	
		yellow.		J		
						1

S:\Masters\Office\Tech Forms & Templates\Lab Chain-of-Custody.doc

PBS ENGINEERING AND ENVIRONMENTAL, 130 NICKERSON ST. #107, SEATTLE, WASHINGTON 98109, (206)-233-9639, FaX: (206)-76: -4780

NVL Laboratories, Inc.

4708 Aurora Ave. N., Seattle, WA 98103 Tel: 206.547.0100, Fax: 206.634.1936 www.nvllabs.com

Analysis Report

AIHA - IH # 101861 WA - DOE # C1765



Total Lead (Pb)

Client: PBS Environmental (Seattle)

Address: 130 Nickerson St Suite 107

Seattle, WA 98109

Batch #: 2614705.00

Matrix: Paint Chips Method: EPA 7000B

Client Project #: 40760.000 Date Received: 11/01/2006 Samples Received: 10 Samples Analyzed: 10

Attention: Ms. Janet Murphy
Project Location: Old Rainier Brewery

Lab ID	Client Sample #	Sample Weight	RL in mg/Kg	Results in mg/Kg	Results in percent
26098538	40760.000-1	0.2150	41.0	3600.0	0.3600
26098539	40760.000-2	0.2047	43.0	7600.0	0.7600
26098540	40760.000-3	0.2006	44.0	< 44.0	< 0.0044
26098541	40760.000-4	0.2035	44.0	7700.0	0.7700
26098542	40760.000-5	0.2111	42.0	17000.0	1.7000
26098543	40760.000-6	0.2069	43.0	150.0	0.0150
26098544	40760.000-7	0.2139	41.0	1500.0	0.1500
26098545	40760.000-8	0.2105	42.0	1200.0	0.1200
26098546	40760.000-9	0.2005	44.0	88.0	0.0088
26098547	40760.000-10	0.2040	43.0	1600.0	0.1600

Sampled by: Client

Analyzed by: Ahmad Izzat

Date Analyzed: 11/02/2006

DRAFT

mg/ Kg =Milligrams per kilogram

Percent = Milligrams per kilogram / 10000

RL = Reporting Limit

'<' = Below the reporting Limit

Note: Method QC results are acceptable unless stated otherwise.

Unless otherwise indicated, the condition of all samples was acceptable at time of receipt.

Bench Run No: 26-1102-4

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Reading No	Building#/Location	Туре	Component	Substrate	Side	Condition	Color	Results
24	4/Level 400	PAINT	WALL	WOOD	. А	FAIR	WHITE	Negative
25	4/Level 400	PAINT	WALL	PLASTER	В	FAIR	WHITE	Positive
26	4/Level 400	PAINT	WALL	CONCRETE	С	FAIR	WHITE	Positive
27	4/Level 400	PAINT	WALL	PLASTER	D	FAIR	WHITE	Positive
39	5/Level 200	PAINT	DOOR	METAL	D	FAIR	GREEN	Positive
40	5/Level 200	PAINT	WALL	DRYWALL	Α	FAIR	WHITE	Negative
36	5/Level 300	PAINT	WALL	CONCRETE	D	FAIR	GRAY	Positive
37	5/Level 300	PAINT	TRIM	METAL	D	FAIR	GREEN	Negative
38	5/Level 300	PAINT	WALL	METAL	С	FAIR	WHITE	Positive
30	5/Level 500	PAINT	WALL	CONCRETE	С	FAIR	BEIGE	Positive
31	5/Level 500	PAINT	DOOR	METAL	В	FAIR	WHITE	Negative
32	5/Level 500	PAINT	TRIM	METAL	D ´	FAIR	WHITE	Positive
33	5A/Level 300	PAINT	FLOOR	CONCRETE	LOWER	FAIR	RED	Negative
34	5A/Level 300	PAINT	DOOR	WOOD	Α	FAIR	GRAY	Positive
35	5A/Level 300	PAINT	DOOR	METAL	D	FAIR	GRAY	Positive
28	5A/Level 500	PAINT	DOOR	WOOD	Α	FAIR	GREEN	Positive
29	5A/Level 500	PAINT	WALL	CONCRETE	С	FAIR	BEIGE	Null
41	6/Level 100	PAINT	WALL	CONCRETE	D	FAIR	WHITE	Negative
56	6/Level 200	PAINT	WALL	PLASTER	Α	FAIR	WHITE	Negative
57	6/Level 200	PAINT	WALL	PLASTER	D	FAIR	WHITE	Negative
58	6/Level 200	PAINT	COLUMN	METAL	D	FAIR	RED	Negative
42	7/Level 500	PAINT	COLUMN	CONCRETE	LOWER	FAIR	GREEN	Null
55	7/Level 200	PAINT	WALL	CONCRETE	Α	FAIR	BEIGE	Positive
54	7/Level 300	PAINT	COLUMN	CONCRETE	Α	FAIR	BROWN	Positive
53	7/Level 400	PAINT	COLUMN	CONCRETE	Α	FAIR	GREEN	Positive
43	7/Level 500	PAINT	COLUMN	CONCRETE	LOWER	FAIR	GREEN	Null
44	7/Level 500	PAINT	COLUMN	CONCRETE	LOWER	FAIR	GREEN	Nuil
45	7/Level 500	PAINT	COLUMN	CONCRETE	LOWER	FAIR	GREEN	Positive
46	7/Level 500	PAINT	WALL	PLASTER	Α	FAIR	WHITE	Negative
47	7/Level 500	PAINT	WINDOW	METAL	D	FAIR	WHITE	Positive
21	10/Level 100	PAINT	DOOR	METAL	С	FAIR	BROWN	Positive
22	10/Level 100	PAINT	WALL	CONCRETE	В	FAIR	RED	Positive
23	10/Level 100	PAINT	FLOOR	CONCRETE	LOWER	FAIR	BEIGE	Negative
17	11/Level 100	PAINT	WALL	CONCRETE	A	FAIR	WHITE	Positive
18	11/Level 100	PAINT	WINDOW	METAL	D	FAIR	WHITE	Positive
19	11/Level 100	PAINT	COLUMN	CONCRETE	D	FAIR	WHITE	Null

When reviewing XRF data, the "side" information provided on this XRF data sheet is in relation to the side of the building was taken. The inspector used north as the basis to establish the "side" designation. As such, side A is north, side B is east, side C is south and D is west. "Null" samples were all retested until a viable result was obtained.

20 11/Level 100 PAINT COLUMN CONCRETE D FAIR WHITE Positive

Reading No	Building#/Location	Type	Component	Substrate	Side	Condition	Color	Results
6	12/Level 100	PAINT	WALL	BRICK	. C	FAIR	YELLOW	Positive
7	12/Level 100	PAINT	TRIM	WOOD	Α	FAIR	WHITE	Positive
5	13/Level 100	PAINT	WALL	BRICK	С	FAIR	BEIGE	Positive
2	13/Level 200	PAINT	WALL	BRICK	Α	FAIR	YELLOW	Positive
3	13/Level 200	PAINT	WALL	BRICK	В	FAIR	RED	Positive
4	13/Level 200	PAINT	WINDOW	METAL	В	FAIR	YELLOW	Positive
74	18/Level 200	PAINT	COLUMN	CONCRETE	Α	FAIR	WHITE	Positive
75	14/Level 200	PAINT	WALL	CONCRETE	С	FAIR	BEIGE	Negative
76	14/Level 200	PAINT	WALL	CONCRETE	С	FAIR	BROWN	Positive
70	21/Level 300	PAINT	DOOR	METAL	D	FAIR	BROWN	Positive
71	21/Level 300	PAINT	WALL	CONCRETE	В.	FAIR	BEIGE	Positive
72	21/Level 300	PAINT	COLUMN	CONCRETE	В	FAIR	BEIGE	Positive
73	21/Level 300	PAINT	WALL	CONCRETE	В	FAIR	BEIGE	Positive
68	21/Level 400	PAINT	COLUMN	CONCRETE	LOWER	FAIR	WHITE	Negative
69	21/Level 400	PAINT	DOOR	WOOD	С	FAIR	BEIGE	Positive
67	21/Level 500	PAINT	COLUMN	CONCRETE	С	FAIR	WHITE	Positive
66	21/Level 600	PAINT	DOOR	METAL	С	FAIR	GREEN	Positive
64	21/Level 700	PAINT	FLOOR	CONCRETE	LOWER	FAIR	RED	Negative
65	21/Level 700	PAINT	WALL	CONCRETE	С	FAIR	BEIGE	Positive
59	21/Level 800	PAINT	WALL	CONCRETE	Α	FAIR	BEIGE	Positive
60	21/Level 800	PAINT	DOOR	METAL	Α	FAIR	BEIGE	Positive
61	21/Level 800	PAINT	TRIM	WOOD	D	FAIR	BEIGE	Positive
62	21/Level 800	PAINT	DOOR	METAL	В	FAIR	GRAY	Positive
63	21/Level 800	PAINT	COLUMN	METAL	D	FAIR	BEIGE	Negative
51	22/Level 500	PAINT	WALL	CONCRETE	С	FAIR	GREEN	Positive
8	23/Level 100	PAINT	WALL	WOOD	Α	FAIR	BEIGE	Positive
9	23/Level 100	PAINT	COLUMN	CONCRETE	С	FAIR	BEIGE	Null
10	23/Level 100	PAINT	COLUMN	CONCRETE	С	FAIR	BEIGE	Positive
11	23/Level 100	PAINT	DOOR	METAL	В	FAIR	WHITE	Positive
12	23/Level 100	PAINT	RISER	CONCRETE	В	FAIR	BROWN	Negative
13	23/Level 200	PAINT	WALL	CONCRETE	Α	FAIR	GREEN	Null
14	23/Level 200	PAINT	WALL	CONCRETE	Α	FAIR	GREEN	Null
15	23/Level 200	PAINT	WALL	CONCRETE	Α	FAIR	GREEN	Positive
16	23/Level 300	PAINT	CEILING	WOOD	UPPER	FAIR	GREEN	Positive
52	25/Level 400	PAINT	COLUMN	CONCRETE	Α	FAIR	BLACK	Negative

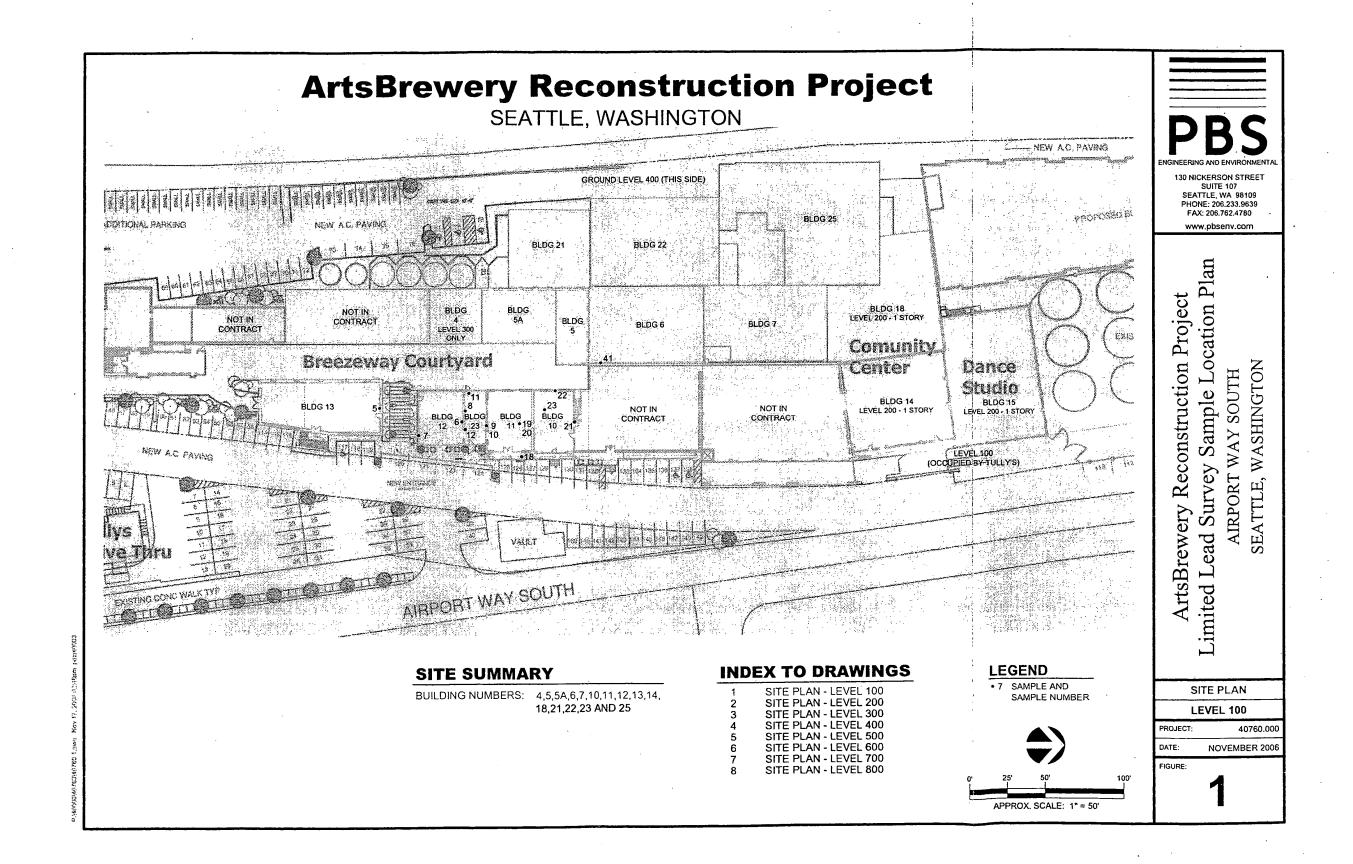
When reviewing XRF data, the "side" information provided on this XRF data sheet is in relation to the side of the building was taken. The inspector used north as the basis to establish the "side" designation. As such, side A is north, side B is east, side C is south and D is west. "Null" samples were all retested until a viable result was obtained.

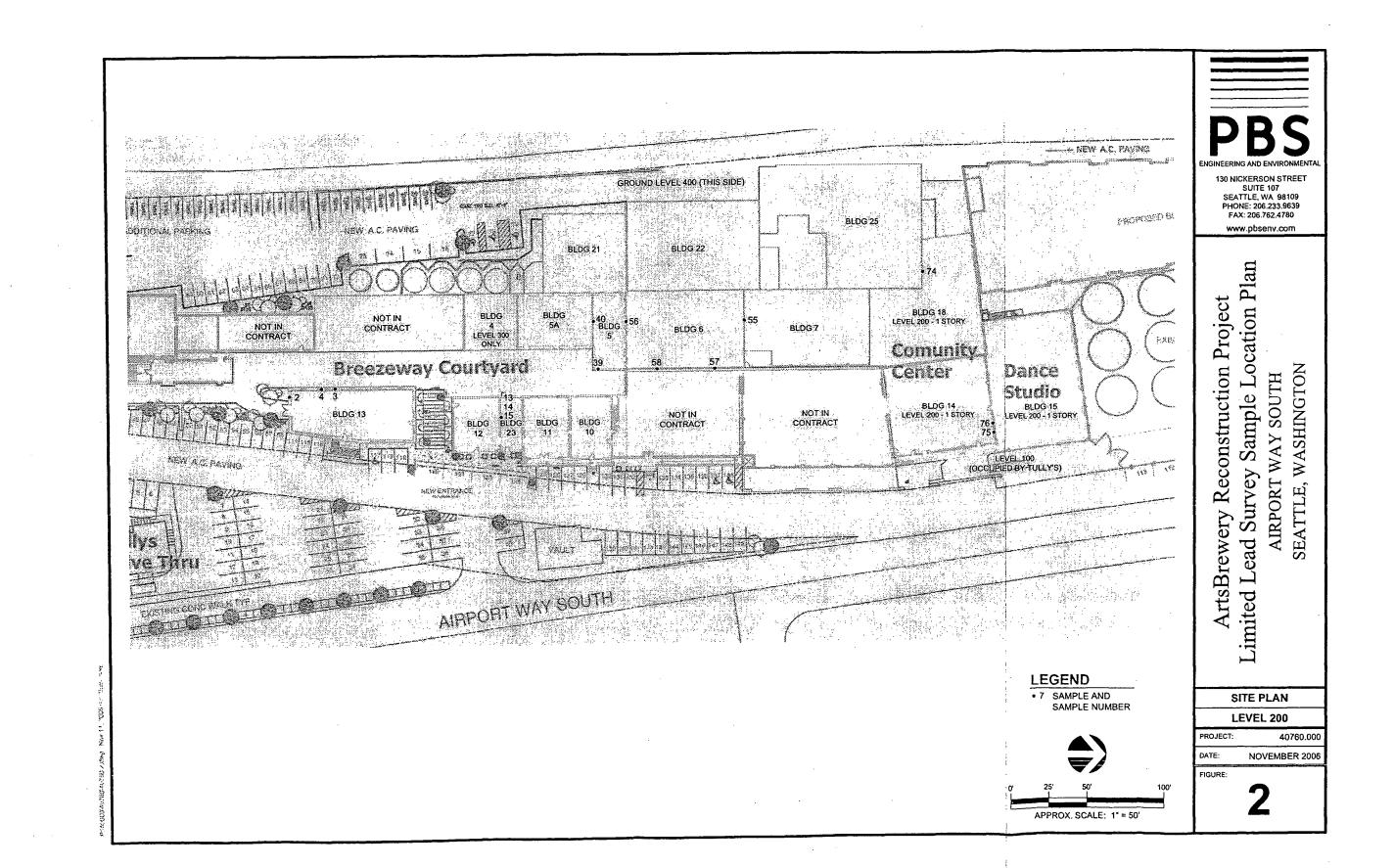
48 25/Level 500 PAINT DOOR METAL D FAIR GREEN Positive

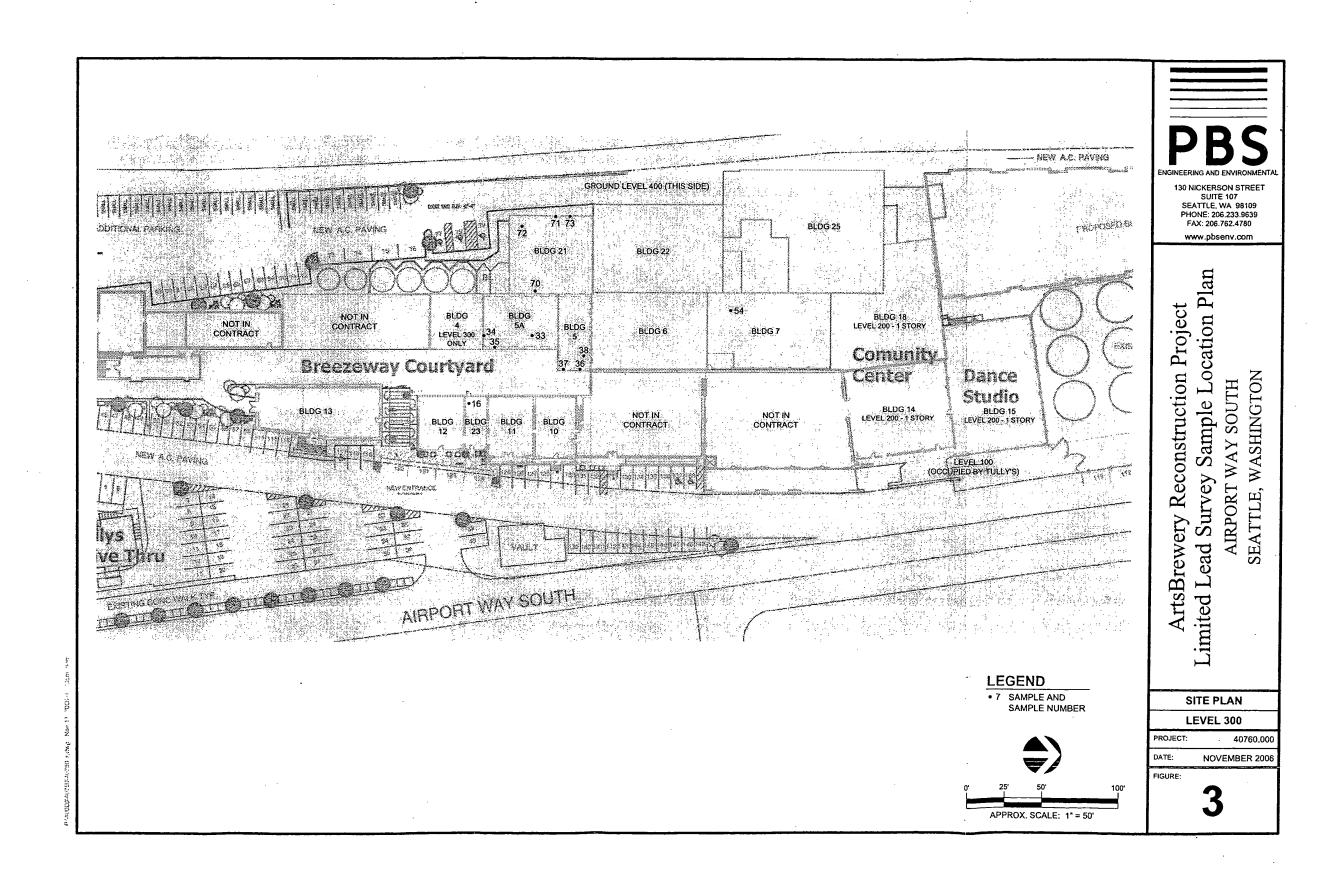
Reading No	Building#/Location	Туре	Component	Substrate	Side	Condition	Color	Results
49	25/Level 500	PAINT	WALL	PLASTER	В	FAIR	WHITE	Positive
50	25/Level 500	PAINT	COLUMN	CONCRETE	В	FAIR	WHITE	Negative
1		SHUTTER CAL	,					

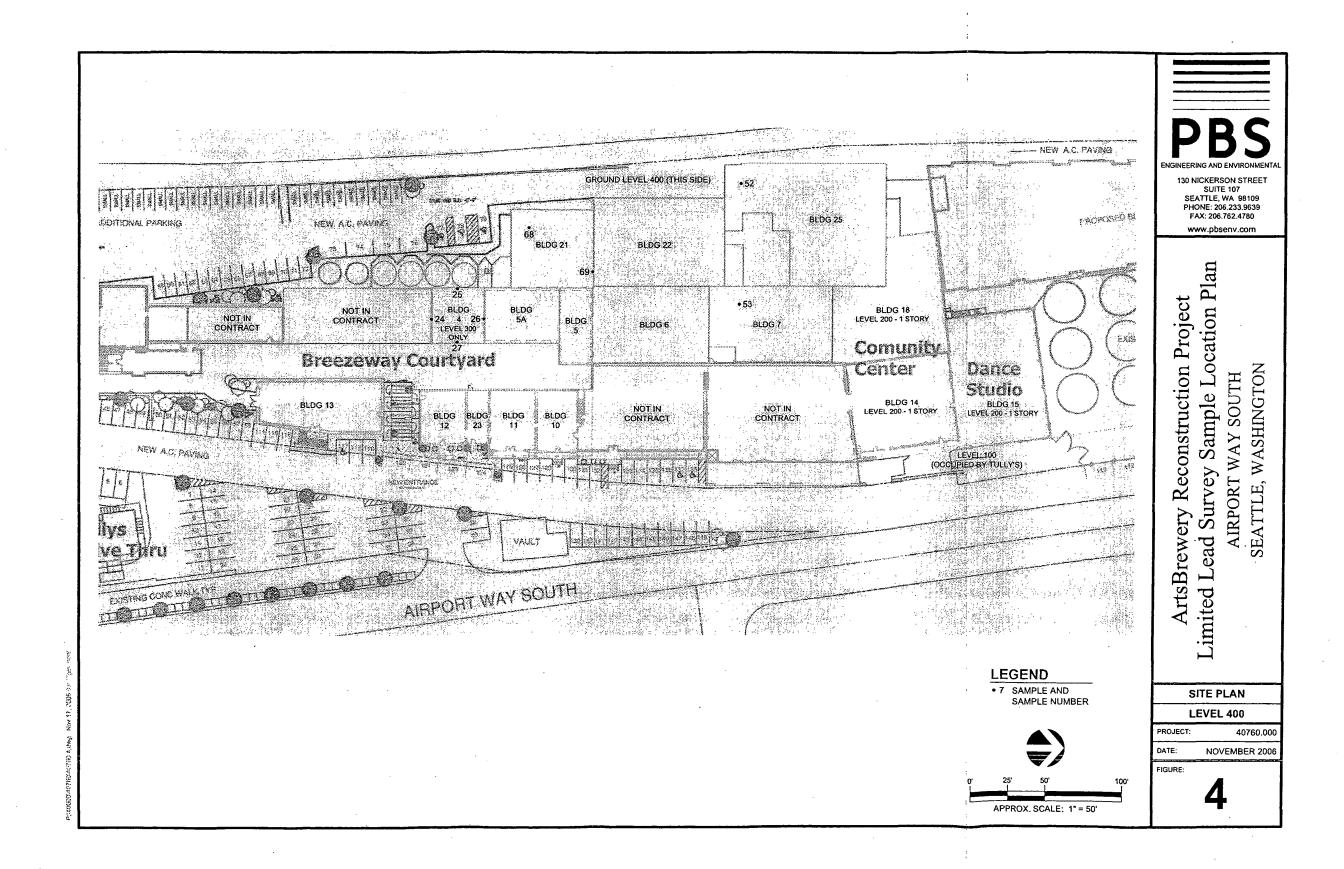
When reviewing XRF data, the "side" information provided on this XRF data sheet is in relation to the side of the building was taken. The inspector used north as the basis to establish the "side" designation. As such, side A is north, side B is east, side C is south and D is west. "Null" samples were all retested until a viable result was obtained.

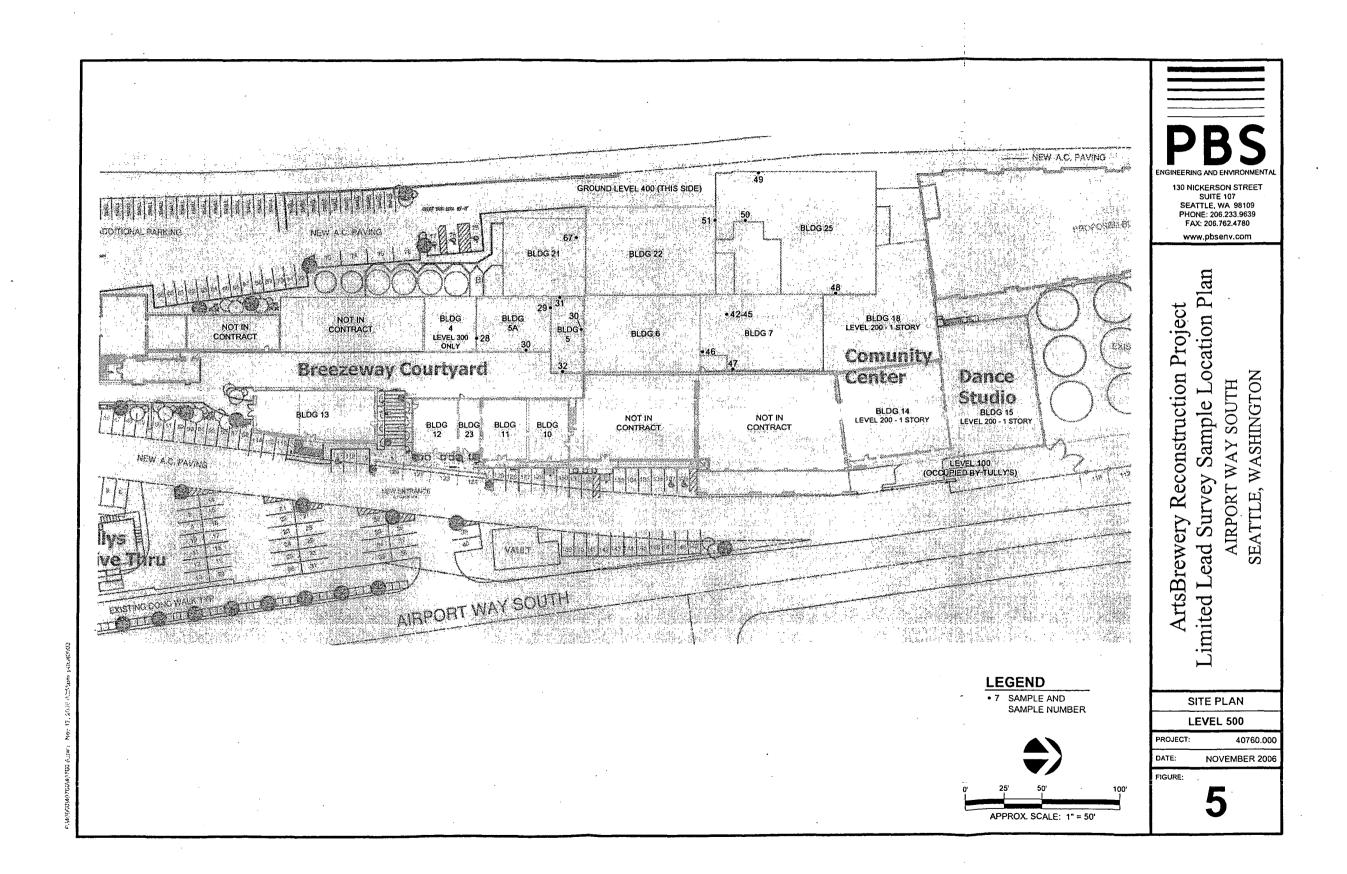
APPENDIX B SITE PLAN DRAWINGS

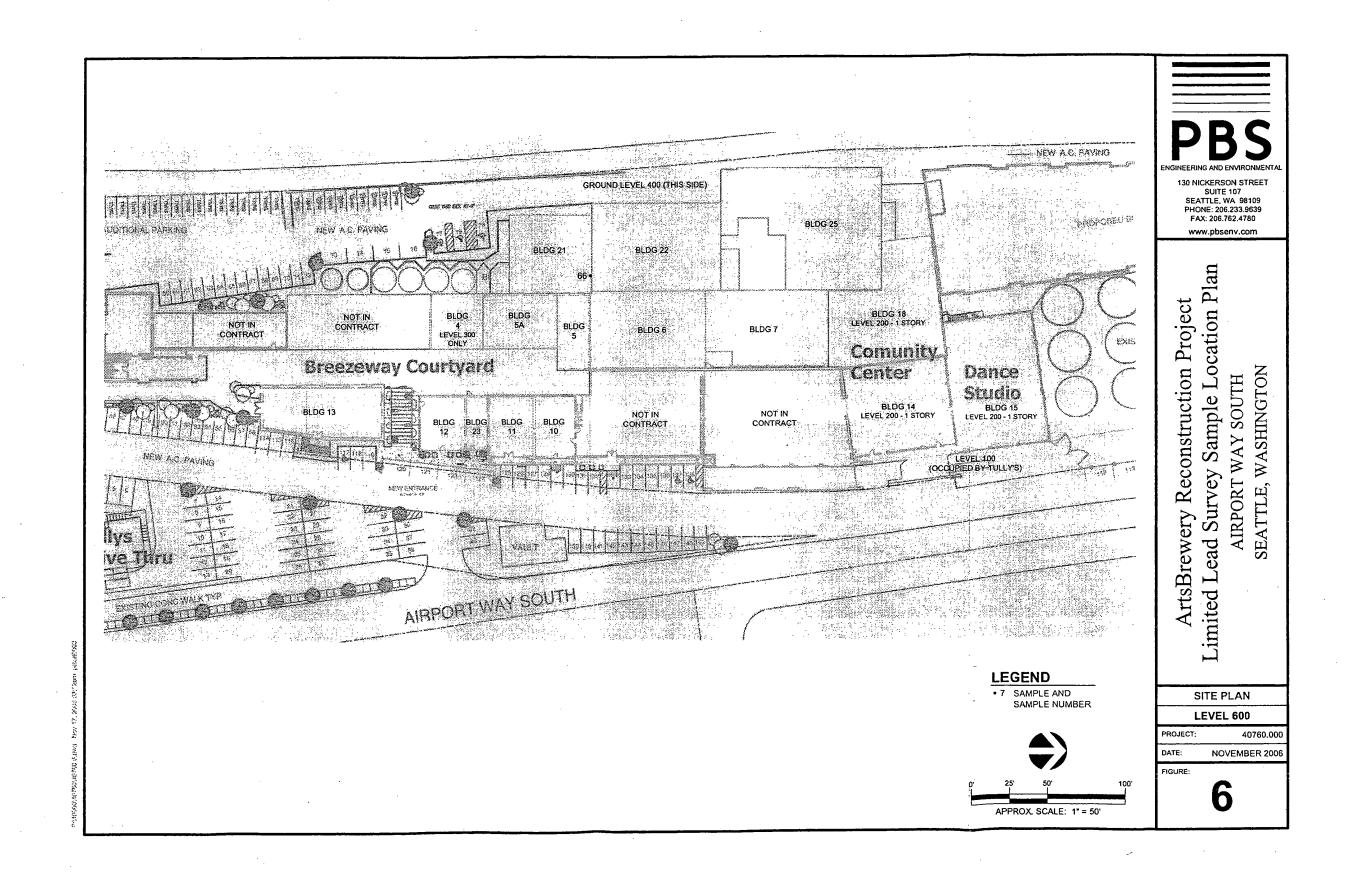


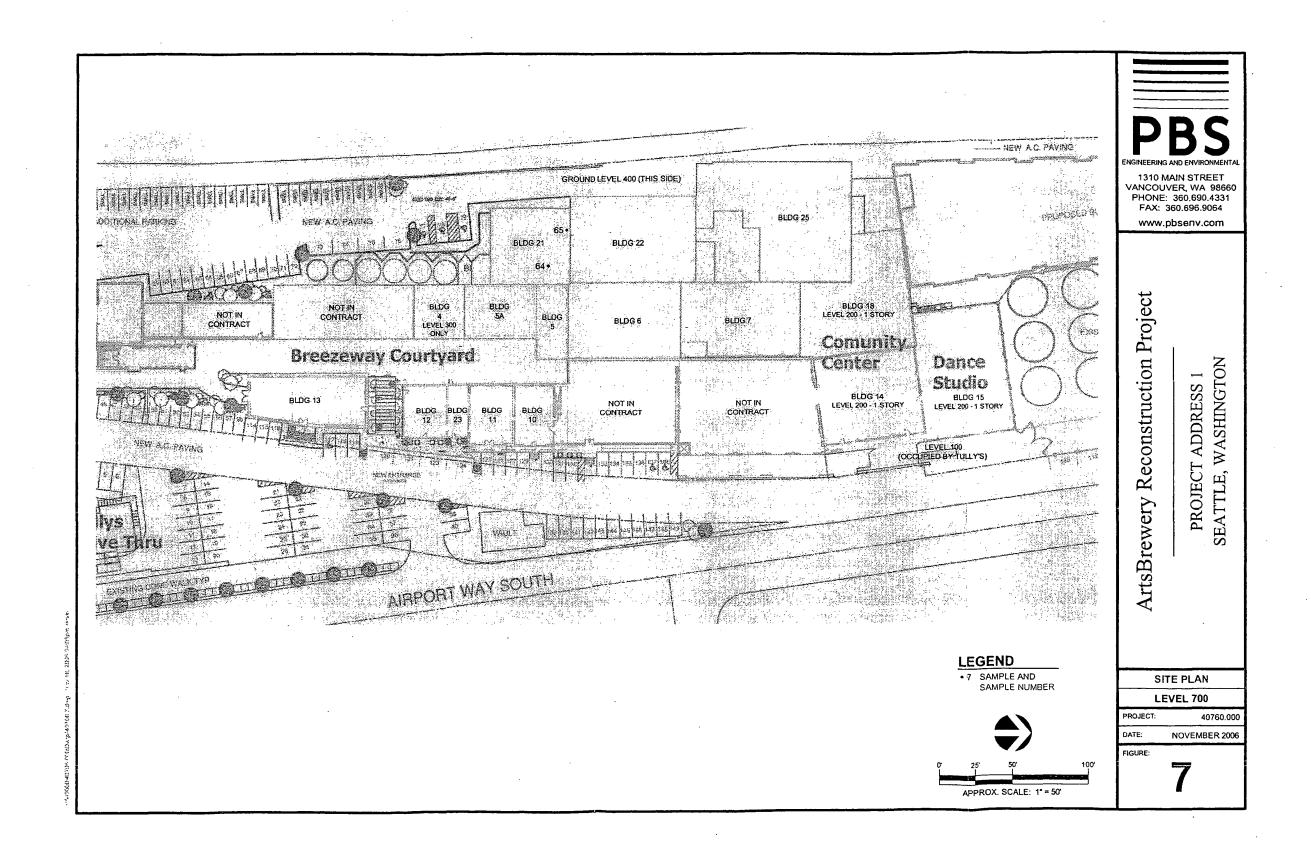


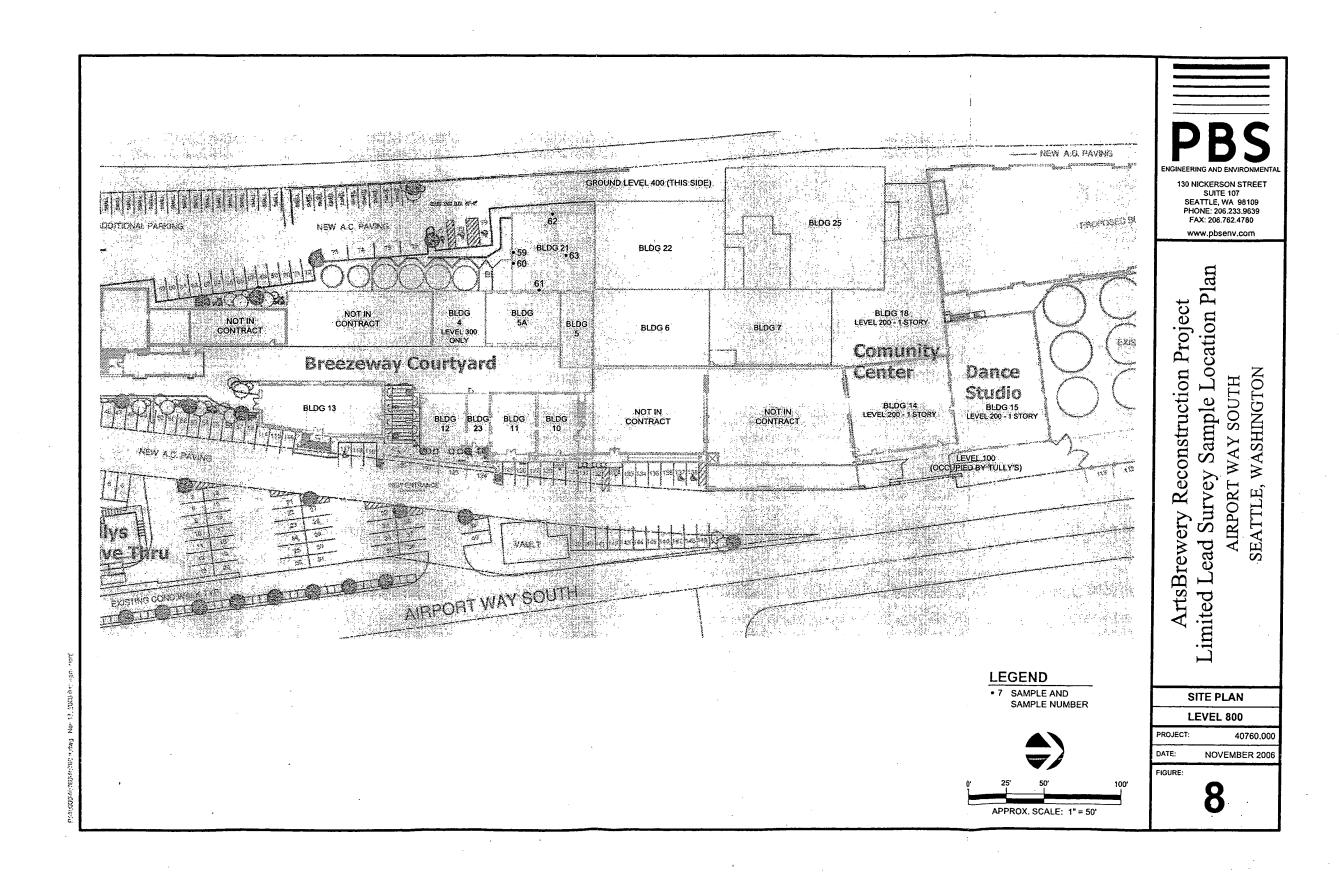












APPENDIX C

CERTIFICATIONS

WA/CTED Lead-Based Paint Program



Janet Murphy

Inspector

CERT #0258 Expires 5/6/2007

